

Amendments to the Specification:

Please replace the paragraph beginning at page 1, line 1 with the following rewritten paragraph:

DESCRIPTION

~~Thread for Vascular Stent and Vascular Stent Using the Thread~~

Technical Field

~~— This invention relates to a thread for forming a stent for vessels, implanted within vessels of a living body, such as lymph vessels, bile ducts or ureter, for maintaining a patency state of the lumen of the vessels, and to a stent for vessels employing the thread.~~

~~— This application claims priority of Japanese Patent Application No. 2002-279404, filed in Japan on September 25, 2002, the entirety of which is incorporated for reference herein~~

Background Art

SPECIFICATION

TITLE OF THE INVENTION

THREAD FOR VASCULAR STENT AND VASCULAR STENT USING THE THREAD

CROSS REFERENCE TO RELATED APPLICATIONS

The present application claims priority to Japanese Patent Application No. 2002-279404, filed on September 25, 2002, the disclosure of which in its entirety is incorporated by reference herein.

BACKGROUND OF THE INVENTION

The present invention relates to a thread for forming a stent for vessels, implanted within vessels of a living body, such as lymph vessels, bile ducts or ureter, for maintaining a patency state of the lumen of the vessels, and to a stent for vessels employing the thread.

Please replace the paragraph beginning at page 3, line 13 with the following rewritten paragraph:

Disclosure of the Invention

~~It is an object of the present invention to provide a thread for forming a stent for vessels, and a stent for vessels, in which the drug can be reliably retained to implant in the vessel, such as blood vessel.~~

~~It is another object of the present invention to provide a thread for forming a stent for vessels, and a stent for vessels, in which the drug can be released into the body of for a prolonged period of time.~~

~~It is a further object of the present invention to provide a thread for forming a stent for vessels, and a stent for vessels, in which it is possible to control the drug content, the amount of drug release per unit time, and the time period for drug release.~~

~~It is yet another object of the present invention to provide a thread for forming a stent for vessels, which thread is degraded in vivo after or in the course of drug release without being left as a foreign substance in the living body, and a stent for vessels.~~

~~The present invention, proposed for accomplishing the above objects, is directed to a thread for forming a stent for vessels introduced and implanted in vessels, such as blood vessels, in a living body, and comprises a thread formed on melt spinning a biodegradable polymer and a layer of a biodegradable polymer containing a drug and which is of the same sort as the biodegradable polymer constituting the thread. A biodegradable polymer, in which to contain the drug, is dissolved on being mixed with a solvent, to yield a solution. A drug is mixed or dissolved in this solution of the biodegradable polymer. The solution of the biodegradable polymer, into which the drug is mixed or dissolved, is coated on the thread surface to constitute the drug-containing layer.~~

SUMMARY OF THE INVENTION

The present invention relates to a thread for forming a stent for vessels, implanted within vessels of a living body, such as lymph vessels, bile ducts or ureter, for maintaining a patency state of the lumen of the vessels, and to a stent for vessels employing the thread.

The present invention provides in an embodiment a thread for forming a stent for vessels, and a stent for vessels, in which the drug can be reliably retained to implant in the vessel, such as blood vessel.

The present invention provides in an embodiment a thread for forming a stent for vessels, and a stent for vessels, in which the drug can be released into the body of for a prolonged period of time.

The present invention provides in an embodiment a thread for forming a stent for vessels, and a stent for vessels, in which it is possible to control the drug content, the amount of drug release per unit time, and the time period for drug release.

The present invention provides in an embodiment a thread for forming a stent for vessels, which thread is degraded in vivo after or in the course of drug release without being left as a foreign substance in the living body, and a stent for vessels.

The present invention in an embodiment is directed to a thread for forming a stent for vessels introduced and implanted in vessels, such as blood vessels, in a living body, and comprises a thread formed on melt-spinning a biodegradable polymer and a layer of a biodegradable polymer containing a drug and which is of the same sort as the biodegradable polymer constituting the thread. A biodegradable polymer, in which to contain the drug, is dissolved on being mixed with a solvent, to yield a solution. A drug is mixed or dissolved in this solution of the biodegradable polymer. The solution of the biodegradable polymer, into which the drug is mixed or dissolved, is coated on the thread surface to constitute the drug-containing layer.

Please replace the paragraph beginning at page 8, line 4, with the following rewritten paragraph:

~~Other objects and advantages of the present invention will become more apparent from the description of the following embodiments thereof especially when read in conjunction with the drawing.~~

Additional features and advantages of the present invention are described in, and will be apparent from, the following Detailed Description of the Invention and the figures.

Please replace the paragraph beginning at page 8, line 7 with the following rewritten paragraph:

~~Brief Description of the Drawings~~

BRIEF DESCRIPTION OF THE FIGURES

Please replace the paragraph beginning at page 9, line 11 with the following rewritten paragraph:

~~Best Mode for Carrying out the Invention~~

DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to a thread for forming a stent for vessels, implanted within vessels of a living body, such as lymph vessels, bile ducts or ureter, for maintaining a patency state of the lumen of the vessels, and to a stent for vessels employing the thread.

Please replace the paragraph beginning on line 20, at page 14 with the following rewritten paragraph:

The thread 1, on the drug-containing layer 2 of which has been deposited the biodegradable polymer solution, is then completely dried to give a thread for the stent for vessels 20, composed of the drug-containing layer 2 and the second layer 3, formed only of the biodegradable polymer, sequentially layered on the thread as shown ~~in Fig. 4.~~ in Fig. 4.

Please replace the paragraph beginning on line 15, at page 26 with the following rewritten paragraph:

~~The solution of poly-L-lactic acid is obtained on adding a suitable amount of 1,4-dioxane, as a solvent, into a tank charged with pellets of poly-L-lactic acid, and heating the resulting reaction mass to 90°C, and agitating to dissolve the pellets of poly-L-lactic acid.~~

The solution of poly-L-lactic acid is obtained on adding a suitable amount of 1,4-dioxane, as a solvent, into a tank charged with pellets of poly-L-lactic acid, and heating the resulting reaction mass to 90°C, and agitating to dissolve the pellets of poly-L-lactic acid.

Please add the following new paragraph after the paragraph ending on line 13 of page 28:

It should be understood that various changes and modifications to the presently preferred embodiments described herein will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the present invention and without diminishing its intended advantages. It is therefore intended that such changes and modifications be covered by the appended claims.

Please replace the paragraph beginning at page 35, line 1 with the following rewritten paragraph:

ABSTRACT

~~A thread (1) for forming a vascular stent implanted in vessels. This thread is formed by melt spinning a biodegradable polymer. On the surface of the thread, there is formed a layer (2) of a drug-containing biodegradable polymer of the same sort as the biodegradable polymer constituting the thread.~~

ABSTRACT OF THE DISCLOSURE

A thread for forming a vascular stent implanted in vessels is provided. This thread is formed by melt-spinning a biodegradable polymer. On the surface of the thread, there is formed a layer of a drug-containing biodegradable polymer of the same sort as the biodegradable polymer constituting the thread.